

Capturing Successes of Clinical Training Systems in Uzbekistan Using a Self-Directed Assessment Paradigm

JHP-14

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August 2002

United States Agency for International Development

CREDITS

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ACKNOWLEDGMENTS

We would like to acknowledge the following individuals, organizations and institutions:

First Tashkent State Medical Institute: Dr. Makhmuda Kattakhojaeva, head of the obstetrics/gynecology (ob/gyn) department, and Dr. Lubov Keinova, professor of ob/gyn, for ongoing technical, training and logistical support;

Second Tashkent State Medical Institute: Dr. Dilbar Nazhmutdinovna, head of the ob/gyn department, and Dr. Dilrabo Kaumova, professor of ob/gyn, for ongoing technical, training and logistical support;

Dr. Iakhshinor Allayarov, director of the Samarkand Medical College, Midwifery Department, for exemplifying the sustainability of the Regional Clinical Training Network in Uzbekistan and showing outstanding initiative in institutionalizing inservice competency-based training; and

United States Agency for International Development and the United Nations Population Fund in collaboration with the International Planned Parenthood Association for their generous financial and technical support.

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This publication was made possible through support provided in part by the Service Delivery Improvement Division, Office of Population and Reproductive Health, Bureau for Global Health, U.S. Agency for International Development (USAID), under the terms of Award No. HRN-A-00-98-00041-00. The opinions expressed herein are those of JHPIEGO and do not necessarily reflect the views of USAID.

Printed August 2002

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ABBREVIATIONS AND ACRONYMS

AIHA	American International Health Alliance
CAR	Central Asian Republics
CBT	Competency-based training
COC	Combined oral contraceptive
CTS	Clinical training skills
CTU	Contraceptive technology update
FP	Family planning
IP	Infection prevention
IPPF	International Planned Parenthood Federation
IUD	Intrauterine device
MOE	Ministry of Higher and Secondary Specialized Education
MOH	Ministry of Health
MVA	Manual vacuum aspiration
NGO	Nongovernmental organization
NSDGs	National service delivery guidelines
ob/gyn	Obstetrics/gynecology
PAC	Postabortion care
RCTN	Regional Clinical Training Network
RH	Reproductive health
RHSEP	Reproductive Health Services Expansion Program
SamMI	Samarkand State Medical Institute
SDA	Self-directed assessment
STI	Sexually transmitted infection
TALC	Technology-Assisted Learning Center
TashMI I	First Tashkent State Medical Institute
TashMI II	Second Tashkent State Medical Institute
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

In Uzbekistan, one of the primary methods of birth control is repeat induced abortion. Despite indications that this practice has declined in recent years, repeat induced abortion as a means of birth control remains a great public health concern because of the prevalence of complications and the overall adverse effects on women's health. In 1993, officials in Uzbekistan began a concerted effort to adopt improved healthcare practices that substitute contraceptive methods for abortion. To assist in this effort, the United States Agency for International Development (USAID) initiated its Reproductive Health Services Expansion Program (RHSEP) throughout Central Asia.

Under the RHSEP, JHPIEGO's activities in the Central Asian Republics (CAR) have focused on developing local family planning/reproductive health (FP/RH) training networks. JHPIEGO has worked with the Ministries of Health (MOHs) and designated training sites of all five republics (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) to develop a core group of advanced trainers capable of transferring modern FP/RH knowledge and skills to other clinicians.

At the start of 1997, with a year's funding from the International Planned Parenthood Federation, JHPIEGO expanded its ongoing work in developing FP/RH curricula and training obstetricians/gynecologists in academic and clinical settings in the CAR. This work assisted the MOHs in each country to establish national, standardized FP/RH curricula for use in medical institutes and nursing/midwifery schools.

In 1999 and 2000, JHPIEGO provided technical assistance for trainer development activities in support of curriculum revision efforts. Because standardized national FP/RH curricular components had been adopted by each republic, JHPIEGO's primary task was to ensure that the instructors from the 35 medical and nursing/midwifery institutions not covered in the initial round of training received the knowledge and skills needed to train new students and healthcare providers effectively. This training was a critical objective in achieving JHPIEGO's overall goal of training network sustainability in the CAR and formed the basis for the Regional Clinical Training Network (RCTN) being established.

In 2000, JHPIEGO conducted an evaluation in Uzbekistan assessing the performance of the clinical trainers and their participants. This process documented how the Uzbek training system was functioning by examining its core group of trainers and training materials and equipment. After JHPIEGO finalized the data collection instruments and trained the Uzbek evaluation team to conduct the self-directed assessment, all 38 Uzbek trainers completed a trainer experience questionnaire. Each of the three Uzbek evaluation team members then observed at least 5 of the 38 trainers performing one or more of the following skills: general FP counseling, IUD insertion, or combined oral contraceptive (COC) counseling. They then administered the participant experience questionnaire to up to five healthcare providers or students (participants) who were trained by each of the 38 trainers. Finally, the Uzbek team observed at least two participants performing one or more of the following skills: general FP counseling, IUD insertion, or COC counseling.

Overall, the results indicated that the training system itself was quite strong, and that trainers and faculty were using CBT in all classroom settings. Trainers used a variety of training methods and materials to transfer knowledge and skills in a wide range of RH topics in pre- and inservice settings. Adequate training and reference materials were available, including anatomic models, with which to conduct CBT. Most trainers had access to the *PocketGuide for Family*

Planning Service Providers, copies of the new curricular components, ZOE anatomic models and hand-held uterine models. They shared resources amongst themselves, and senior trainers provided technical assistance and cotraining opportunities to new trainers on a regular basis.

Due to an overabundance of physicians, client load was deemed insufficient. It was therefore especially important that trainers and participants reported having ample time to practice with anatomic models. The high levels of confidence in IUD insertion, side effects management and general FP counseling reported by trainers, healthcare providers and students are due in part to quality training and adequate practice time with anatomic models.

The project for strengthening FP clinical training in Uzbekistan is in a good position to continue its efforts and ensure sustainability after JHPIEGO has closed out because:

- ◆ Key faculty at four major medical institutes and one major nursing/midwifery school in Uzbekistan have already implemented use of new teaching skills with new FP curricular components.
- ◆ Students and providers leave this training with high confidence and competence levels.
- ◆ An accessible regional training network is established and well equipped to handle training needs in Uzbekistan, including curriculum design.
- ◆ Training sites have found ways to use limited resources to continue training with the use of a lending-library system for materials and TALCs for information updates.

This project was able to accomplish a great deal in a short amount of time. In five years, and with sporadic funding and precarious cash flow during the project period, the way in which healthcare providers—sixth- and seventh-year medical students and third- and fourth-year nursing/midwifery students—were trained was improved and faculty were trained to continue this approach to preservice education. The dedication of the Uzbek working group and participating faculty was, in large part, responsible for these accomplishments. Faculty quickly recognized the advantages of CBT for their own professional development as well as for the people they were training. And it was recognized externally as well. They have been asked to aid in developing CBT across other disciplines, and have been sought out by other development agencies that recognize the value of these skills.

It is important to continue the momentum of activity in Uzbekistan to ensure support for continued training efforts. Next steps should be prioritized and should include greater stakeholder participation, including the MOH and others. In the short term, the RCTN should continue to roll out the curricular components using CBT to the remaining medical institutes and nursing/midwifery schools.

MAP OF UZBEKISTAN

Uzbekistan is located north of Afghanistan and south of Kazakhstan and central Russia. At 447,4000 square kilometers, it is slightly larger than California. Uzbekistan's climate is that of any midlatitude desert with long, hot summers and mild winters with semiarid grassland in the east. The terrain is mostly flat-to-rolling sandy desert with dunes, but it also has broad, flat, intensely irrigated river valleys along the Amu Darya, Sirdaryo (Syr Darya) and Zarafshon rivers. The mountains of Tajikistan and Kyrgyz Republic surround the Fergana Valley in the east.



Note: Kyrgyzstan=Kyrgyz Republic

CAPTURING SUCCESSES OF CLINICAL TRAINING SYSTEMS IN UZBEKISTAN USING A SELF-DIRECTED ASSESSMENT PARADIGM

INTRODUCTION

JHPIEGO's assistance in the five Central Asian Republics (CAR)—Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan—focused on strengthening the capacity of each republic to train healthcare providers and students in family planning (FP) through the development of clinical training networks. Part of that effort involved activities to revise and introduce modern FP/reproductive health (RH) curricular components into the training curricula in each country. These components were finalized for preservice and inservice training sites where JHPIEGO was providing technical assistance in 1995. In 1997, the International Planned Parenthood Federation (IPPF) requested that JHPIEGO extend the curriculum revision work to the national level in all five republics and incorporate the nursing/midwifery curriculum through a new project continuing through 1998. The curricular components already developed would serve as models for the revision and formal incorporation of FP/RH curricular components at all medical and nursing/midwifery institutions throughout the CAR.

This report describes an evaluation conducted in Uzbekistan near the time of project closeout. The evaluation examined the performance of the clinical trainers and the providers they trained using a self-directed assessment (SDA). The evaluation also examined the functioning Uzbek training system, reflecting the institutionalization of FP/RH training systems in the CAR.¹

BACKGROUND

Reproductive Health in Uzbekistan and Central Asian Republics

One of the primary methods of birth control in the CAR is induced abortion. Despite some indications that the number of induced abortions has declined in recent years, the abortion issue remains a great public health concern in Central Asia because of the prevalence of complications and the overall adverse effects on women's health. Overall, 16% of women of reproductive age in Uzbekistan have had at least one abortion. This percentage increases as women move further into their reproductive years. Among this group, 49% have had more than one abortion (among women who have had an abortion, repeat is common). Twelve percent of induced abortions are preceded by a contraceptive failure (Macro International 1997), which indicates that there are issues surrounding quality service provision (including proper IUD insertion and FP counseling).

Due to the promotion of FP under the auspices of reproductive and maternal health, a trend of substituting contraception for abortion has been observed in Central Asia over the past several years. Decreasing maternal mortality (in Uzbekistan from 65 per 100,000 live births in 1991 to 39 in 1994) (Macro International 1997) is attributed to women's improved access to contraceptive methods—an array of FP methods that they obtain primarily through government

¹ Uzbekistan was selected (over Kazakhstan, Kyrgyz Republic and Tajikistan) as the site for the assessment because it had the most comprehensive network of trainers and the most extensive records of trainer development in the region. In addition, with recent military disputes on the Kyrgyz and Uzbek borders and the strict visa requirements imposed by Kazakhstan, it was more logistically feasible to conduct the study on Uzbek soil.



pharmacies and women's consultation centers. FP counseling, however, is still a weak area of service provision, and contraceptive supply stockouts are not unusual.

Central Asian Republic Medical Education

The traditional and dominant 6-year Soviet medical education begins with admission from secondary school (grade 11). The first two years are a combination of pre-medical courses and basic science including foreign language, law and psychology classes. Years three through five are a combination of clinical rotations,² demonstrations and general lectures that introduce new topics and also cover the earlier topics at advancing levels from year to year. There are examinations at the end of each rotation and at the end of each year. Students select specialties by the sixth year, which include rotations through obstetrics/gynecology (ob/gyn), internal medicine and surgery. The major comprehensive examinations follow years three (basic science) and six (clinical).

This program includes considerable hospital time but not much hands-on patient contact. Before the sixth year, students get some practical experience through a required summer month of working as a nurse, and some of them arrange to work nights to be able to care for patients. Otherwise, in contrast with the last year of Western medical education, students have little direct contact with patients until year six, and even then, there is not much interaction.

For years, many educators agreed that, in comparison with Western countries, medical education in the former Soviet Union was uneven in quality and in need of changes. There are many reforms in process, including almost total curriculum redesign in Uzbekistan. Changes in education are being articulated with service delivery reforms. The objectives are to upgrade primary care physicians and to restructure widely dispersed clinics so that they are able to meet most patient needs, thus ending the pattern of unnecessary referrals to hospitals (Karimov 1996).

History of the Project

Since 1993, with the financial support of the United States Agency for International Development (USAID), JHPIEGO's activities in the CAR have focused on developing local FP/RH training networks. The initial package of interventions consisted of four components falling under USAID's Reproductive Health Services Expansion Program:

- ◆ Selection of two to three service delivery sites in each republic appropriate for clinical training
- ◆ Training site staff to transfer skills and knowledge effectively to physicians and medical students
- ◆ Providing needed training equipment and materials to training sites
- ◆ Developing and disseminating national service delivery guidelines (NSDGs) for FP service providers

JHPIEGO worked with the Ministries of Health (MOHs) of all five republics and with their designated training sites to develop a core group of advanced trainers capable of transferring to other clinicians modern FP/RH knowledge and skills in reversible methods of contraception, voluntary surgical contraception for male and female clients and infection prevention (IP) practices. At the start of 1997, with one year of funding from IPPF, JHPIEGO expanded its

² Clinical rotations in the Soviet context are usually faculty-led tours; students are not permitted to interact with patients.

ongoing work to assist the MOHs in each country to establish national, standardized FP/RH curricula for use in medical institutes and nursing/midwifery schools.

JHPIEGO made use of its existing network of incountry trainers for this purpose, focusing on a core group of five regional coordinators who began project planning during a visit to Baltimore, Maryland in August 1997. Each coordinator secured MOH approval for the curriculum revision effort, formed national working groups, prepared course outlines and schedules and developed requisite learning materials. In their capacity as advanced trainers, they also conducted second generation rollout training to ensure that the faculty members (approximately 100 participants) at key institutions were prepared to implement this competency-based training (CBT) for the new curricular components by the 1998–1999 academic year.

After the medical, nursing and midwifery FP/RH curricular components were adopted, to ensure their long-term viability and implementation, JHPIEGO expanded faculty training programs to solidify institutional commitments. In 1999 and 2000, JHPIEGO provided technical assistance for trainer development activities in support of the highly successful curriculum revision effort, itself the product of five years of USAID and United Nations Population Fund (UNFPA)/IPPF-sponsored interventions. Once the standardized national FP/RH curricular components had been adopted by each republic (with the exception of Turkmenistan), JHPIEGO's chief task was to make sure that the instructors from the 35 medical and nursing/midwifery institutions not covered in the initial round of training received the knowledge and skills needed to train new students and healthcare providers effectively. This training was a critical objective in achieving JHPIEGO's overall goal of training network sustainability in the CAR and formed the basis for the Regional Clinical Training Network (RCTN) being established.

JHPIEGO assisted each republic in reaching its sustainability targets by:

- ◆ Developing standard participant learning materials for national clinical FP/RH courses currently being introduced at both preservice and inservice levels
- ◆ Financing co-training opportunities using the standardized national curricular components for 17 new clinical trainers who participated in one of two regional clinical training skills (CTS) workshops and practica
- ◆ Conducting advanced training skills courses for the 17 new clinical trainers to include planning and assessment requirements for IP, minilaparotomy and other technical interventions
- ◆ Financing subsequent CTS co-training for the new advanced trainers and concurrent development of a new generation of clinical trainers
- ◆ Strengthening existing advanced trainers/master trainer candidates by integrating them into JHPIEGO's worldwide network of trainers and training resources

METHODOLOGY

The objectives of the evaluation were:

- ◆ To summarize the process of establishing a regional training network in the CAR
- ◆ To assess the performance/competence of Uzbek trainers and those they have trained
- ◆ To strengthen the capacity of senior CAR trainers in evaluation and assessment skills

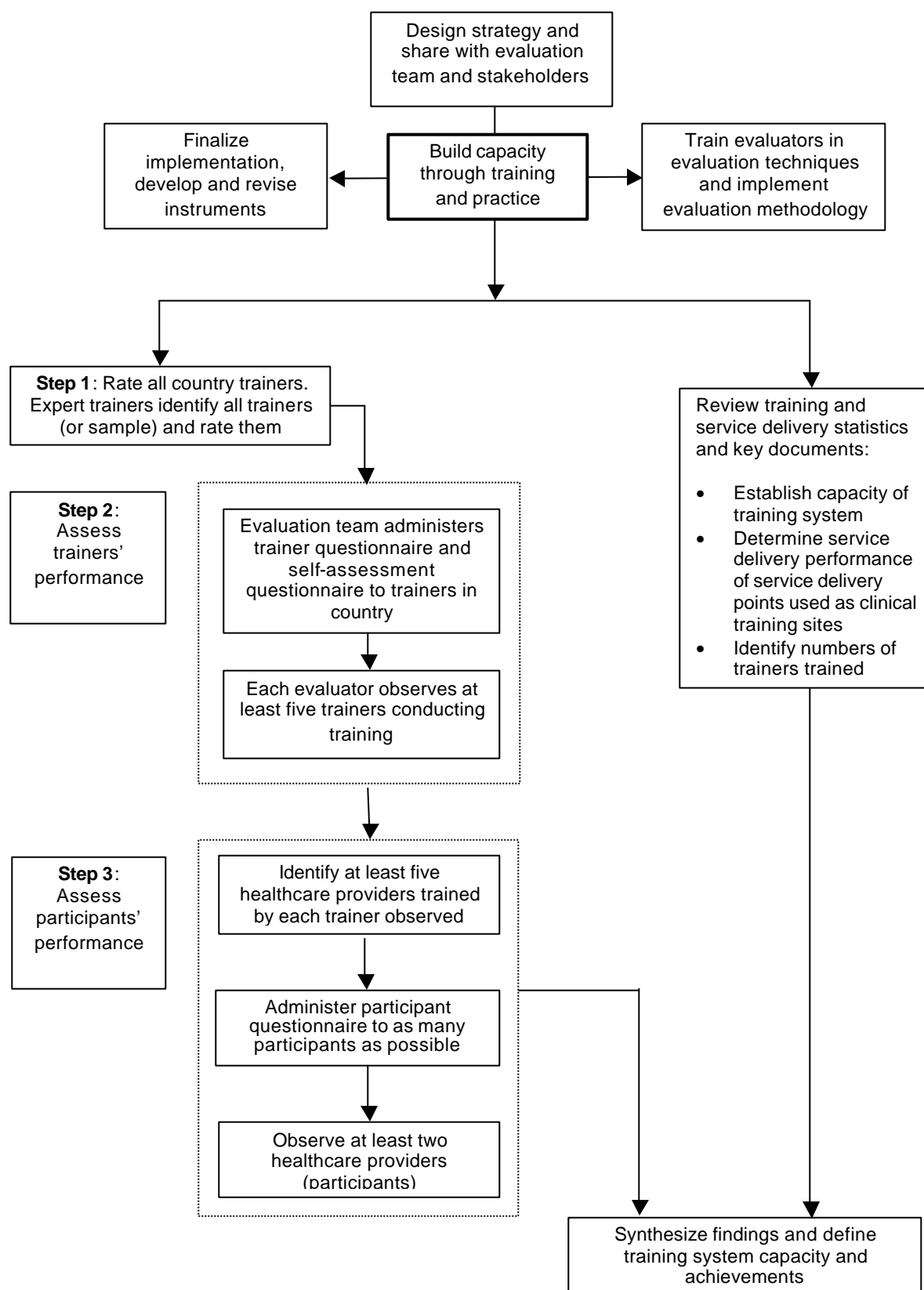
Key questions to be answered in the evaluation were:

- ◆ What alliances have been established, and how have they facilitated the continuation of the clinical training system in Uzbekistan?
- ◆ To what extent are trainers/faculty using CBT in the classroom?
- ◆ Are reference materials and supplies still available and are they being used? Are they adequate?
- ◆ What strengths and weaknesses exist in IUD insertion, combined oral contraceptive (COC) counseling and general FP counseling among trainers and participants?

This evaluation took the form of a self-directed assessment (SDA), which uses research methodologies in settings where resources for large-scale evaluations are not available because of time limitations, budget constraints or insufficient research resources. The process increases and strengthens evaluation capacity of incountry training resources by expanding the roles of advanced and master trainers to become key members of the evaluation team. The evaluation team,³ after a preparatory training workshop with external evaluation specialists, conducts the SDA, making decisions about who is included in the sample and the extent to which providers can be observed in work settings. External sources provide guidance at the request of the evaluation team. **Figure 1** illustrates the steps in the process.

³ See Appendix A for a list of team members.

Figure 1. Self-Directed Assessment Process



Capacity-Building in Evaluation Techniques

This initial phase builds in-country evaluation capacity by translating the evaluation design into an implementation plan, including finalizing data collection instruments. External evaluation specialists assist the team in defining and implementing the SDA process through:

- ◆ Developing potential evaluation strategy and draft data collection instruments
- ◆ Sharing and incorporating input from the evaluation team
- ◆ Conducting evaluation training
- ◆ Revising/finalizing the implementation plan and data collection instruments with the evaluation team

This stage was done in May 2000 during a 3-day workshop for nine advanced trainers from Uzbekistan, Kazakhstan and Kyrgyz Republic. The workshop focused on defining ways in which the evaluation could assess the functioning regional training network as well as the national training systems. At this time, data collection instruments were reviewed and finalized. In addition, JHPIEGO staff and master trainer, Dr. Larisa Agababyan, held sessions on shifting the faculty roles from “trainers” to “observers,” the need for standardized and consistent observations and how competency is assessed. (See **Appendix B** for workshop schedule.)

The second phase (data collection) included a review and synthesis of statistics and documents and the field data collection as shown in **Figure 1** (see **Appendix C** for the numerical coding and tracking system for the data collection). Field data collection was executed in three steps.

Step 1. Rate all country trainers: Expert trainers identified all trainers (or a sample of trainers) and rated them using the Trainer Rating Form. This step was done first to capture the trainers’ ratings before the evaluators continued the assessment and gathered information that could affect the ratings. During this process, the trainers applied rating skills that they had learned as part of expanding their role as an evaluator.

Step 2. Assess trainers’ performance: Evaluators assessed the training skills, clinical skills and clinical training skills of identified trainers (the same ones assessed in the trainer rating step). During this step, the team:

- ◆ Administered the trainer questionnaire and self-assessment questionnaire to trainers in country
- ◆ Reviewed the numbers of persons trained by type of training and topic
- ◆ Observed at least five trainers conducting training

Step 3. Assess participants’ performance: Evaluators then examined the confidence and experience of providers who underwent training as a function of the number of courses they attended, the training methods used when covering material, the amount of time spent practicing a new skill and the availability of material and human resources. During this step, the team:

- ◆ Identified at least five students or healthcare providers trained by each trainer observed
- ◆ Administered the participant questionnaire to as many participants as possible
- ◆ Observed at least two healthcare providers or students as they were providing a specific service

Concurrently, the evaluation team reviewed training and service delivery statistics and key documents, and updated the December 1998 training systems development desk review. The data synthesis phase allowed the team to define the training system's capacity and achievements. In September 2000, the team prepared preliminary results. Participation in this process ensured that the Uzbek members of the evaluation team worked on linking results to JHPIEGO benchmarks and indicators and USAID indicators to measure project successes. The 2-day workshop⁴ combined presentations of results and discussions about how the Regional Clinical Training Network (RCTN) could use the results for planning and marketing for future activities, especially after JHPIEGO closeout.

Data Collection Instruments

There were several data collection instruments:

- ◆ Trainer Rating Form
- ◆ Trainer Experience Questionnaire
- ◆ Participant Experience Questionnaire
- ◆ Observation Checklists

Trainer Rating Form: The team developed a trainer rating form⁵ (**Appendix D**) to rate all 38 trainers in Uzbekistan. The form served as an index to compare the Uzbek training team's perceptions of:

- ◆ The trainer's ability to conduct training
- ◆ The trainer extending those training skills beyond the FP part of the ob/gyn rotation
- ◆ The trainer's perceived potential for being part of the larger clinical training network

The trainer rating form answered the key question: *What alliances have been established, and how have they facilitated the continuation of the clinical training system in Uzbekistan?*

Trainer Experience Questionnaire: All 38 trainers in Uzbekistan received a questionnaire that asked them about their experience in the JHPIEGO training process and about their subsequent work as a trainer. The trainer experience questionnaire responded to the key questions:

- ◆ *To what extent are trainers/faculty using CBT in the classroom?*
- ◆ *Are reference materials and supplies still available and are they being used?*
- ◆ *Are reference materials and supplies adequate?*

⁴ See Appendix B for workshop schedule.

⁵ This form is on file in the JHPIEGO Research and Evaluation Office.



Participant Experience Questionnaire: This questionnaire surveyed providers and students who had participated in training activities conducted by one or more of the 38 trainers. It focused on the participants' training experiences and the ways in which they used their newly acquired knowledge and skills. The participant experience questionnaire addressed the key questions:

- ◆ *To what extent are trainers/faculty using CBT in the classroom?*
- ◆ *Are reference materials and supplies still available and are they being used?*
- ◆ *Are reference materials and supplies adequate?*

Observation Checklists: Observation checklists were developed for several skills identified as the ones most readily observed in a FP clinic: IUD insertion with proper IP practices, COC counseling and general FP counseling. The observation checklists answered the key question: *What strengths and weaknesses exist in IUD insertion, COC counseling and general FP counseling among trainers and participants?*

In developing, reviewing and finalizing the data collection instruments, key members of the RCTN from Uzbekistan, Kazakhstan, Kyrgyz Republic and Tajikistan defined standards of competency. Consensus was met on ways in which skills and knowledge could be assessed (role plays, case studies, simulations on anatomic models or client interaction). During this workshop, issues surrounding modified inter-rater reliability and observation bias were also addressed, and training was provided to increase inter-rater reliability. The RCTN members then identified which steps within each skill chosen for observation (IUD insertion, COC counseling and general FP counseling) were required for a provider or student to be competent (Brechtin et al 2000).

Because funding was not available for further activity in the CAR, the evaluation was conducted only one year after the curricula were officially in place. In addition, the evaluation had to be scheduled during the summer because the project was closing in September 2000. It was not possible for the Uzbek team to observe trainer's training skills because there were no classes in session at that time.

FINDINGS

General

The Uzbek team was able to collect more than the minimum numbers defined in the SDA paradigm. There were 196 participant questionnaires collected, and over 39 participants were observed in one or more of the following skills: IUD insertion, COC counseling or general FP counseling. **Table 1** shows the number of trainers and participants sampled. Three master and advanced trainers filled out trainer rating forms for all 38 trainers in Uzbekistan. Those 38 trainers also completed the trainer experience questionnaire. Twenty-nine trainers were observed in IUD insertion, COC counseling and general FP counseling. Sixteen participants were observed in IUD insertion, 18 in COC counseling and 17 in general FP counseling.

Table 1. Number of Trainers and Participants Assessed by Data Collection Methods

Data Collection Instrument	Trainers	Participants
Trainer Rating Form	38	
Trainer Experience Questionnaire	38	
Participant Experience Questionnaire		196
Observation Checklists:		
IUD insertion	29	16
COC counseling	29	18
General FP counseling	29	17
Total	87 Observations	51 Observations

Trainer Demographics

Of the trainers evaluated, there was unequal distribution by gender and professional cadre. Many more obstetricians/gynecologists (n=37) than general practitioners (n=1) and no nurses or midwives participated in the evaluation. This finding reflects the abundance of physicians in the region, the region's reliance on specialists to provide primary care, the fact that only physicians can serve as medical and nursing/midwifery instructors and the project's training focus.

The mean age was 38 years of age and almost all were female. Most teaching responsibilities among trainers were in inservice training: 12 for inservice medical and 24 for inservice nursing/midwifery. Preservice education was also represented: 6 for preservice medical and 2 for preservice nursing/midwifery.

The Uzbek training network included 1 master trainer, 2 advanced trainers, 6 candidate advanced trainers, 10 clinical trainers and 19 candidate clinical trainers. The geographic distribution is shown in **Table 2**.

Table 2. Geographic Distribution of Trainers by Trainer Classification

Trainer Classification	Samarkand	Tashkent	Andizhan	Other City
Master Trainer	1			
Advanced Trainer		2		
Candidate Advanced Trainer	3	2		1
Clinical Trainer	4	4	1	1
Candidate Clinical Trainer	16	3		

Participant Demographics

As with the trainer group, there was unequal distribution by gender and professional cadre among participants (**Table 3**)—with no nurses or midwives participating in the evaluation. This finding also reflects the abundance of physicians in the region, the region's reliance on specialists to provide primary care and the project's physician training focus. The mean age was 29.7 years, and participants were mostly female (n=137 or 70%). Among providers there was nearly an equal split between obstetricians/gynecologists (46%) and general practitioners (54%).

Table 3. Characteristics of the Study Population: Healthcare Providers and Students

Variable	n=196	Percentage
Mean Age: 29.7 years		
Gender:		
Male	59	30
Female	137	70
Healthcare provider:	106	54
Obstetrician/Gynecologist	49	46
General Practitioner	57	54
Student	90	46

Both trainers and participants (healthcare providers and students) were evaluated by the Uzbek evaluation team in one or more of the following skills: IUD insertion, COC counseling and general FP counseling. The majority of trainers were observed (76.3% or 28 of 38), but only a few participants were observed because of logistical constraints. Trainers were observed at one of three sites (First Tashkent State Medical Institute [TashMI I], Second Tashkent State Medical Institute [TashMI II] or Samarkand State Medical Institute [SamMI]), all of which were equipped with ZOE[®] pelvic anatomic models for IUD insertion and other faculty trainers for role plays in COC and FP counseling observations.

The remaining findings are discussed by key question.

- ◆ *What alliances have been established, and how have they facilitated the continuation of the clinical training system in Uzbekistan?*

The three evaluators rated the 38 Uzbek trainers on aspects of their participation in the institutionalization of FP/RH training. The responses were used as a proxy to evaluate the RCTN as an alliance that will continue to improve the clinical training system in Uzbekistan. **Table 4** summarizes the findings.

Table 4. The Regional Clinical Training Network as a Proxy for Institutionalization of Family Planning/ Reproductive Health Training

Participates in Institutionalization of FP/RH Training	Yes		No	
	n	%	n	%
Thinks of him/herself as a trainer in a network	35	92	3	8
Envisions him/herself as being able to take on additional clinical topics for conducting training	36	95	2	5
Envisions further development of the clinical training network	28	74	10	26
Envisions an increased number of clinical trainers in Uzbekistan	32	84	6	16
Envisions the creation of a clinical training nongovernmental organization	30	79	8	21

Trainers were more likely to see themselves as part of a training system than see the role of the network. The majority of those rated saw themselves as part of a network (92%) and as being able to conduct training in other clinical areas (95%). Many of those rated also envision further development of the training network (74%), and see the network growing in the future (84%). Finally, the evaluators rated 79% of trainers as being able to see the network becoming an independent nongovernmental organization (NGO).

Examples demonstrating how trainers are functioning in the network include:

- ◆ Trainers from Tashkent and Samarkand work closely together to reach the rest of the country.
- ◆ Uzbek trainers are currently collaborating with Abt Associates and the American International Health Alliance (AIHA) to provide support to the country's health reform project.
- ◆ The World Bank-financed Know-How Fund is working with a number of Uzbek trainers to conduct training for general practitioners.
- ◆ Trainers from Uzbekistan work closely with other regional trainers from Kazakhstan, Kyrgyz Republic and Tajikistan. This key alliance demonstrates the regional functionality of the network.

Trainers in Uzbekistan share materials and information through Technology-Assisted Learning Centers (TALCs) at TashMI I and II, established in July 2000 to facilitate the institutions' roles as regional and national resource points for FP/RH training. Trainers and faculty at TashMI I and II have already shared TALC-based information with colleagues in Samarkand via e-mail. The TALCs will help maintain alliances formed throughout the duration of the project.⁶

The RCTN fostered connections to other institutions that the project was unable to reach because of financial and time constraints. The network was very successful in building a critical mass of trainers for the country's use, as demonstrated by the achievements of the Samarkand Medical College. It is a prime example of a model training site adopting the CBT approach to FP/RH and other disciplines in preservice midwifery education and training, using its own initiative and resources. (See **Appendix E** for details.) As such, it is a principal example of the indirect and synergistic effects of JHPIEGO interventions in Central Asia—the stimulation of successful local efforts to incorporate CBT into medical and nursing/midwifery education in a systematic and therefore sustainable fashion (Agababyan et al 2001).

Effective networks are also making access to training resources widespread. Most trainers had access to the *PocketGuide for Family Planning Service Providers*, copies of the new curricular components, ZOE anatomic models and hand-held uterine models. Although most of these trainers received these materials while they were in training, those who did not have a personal copy borrowed from other trainers. The ob/gyn departments at TashMI I and II kept these materials in communal spaces and instituted a lending-library system so that the entire faculty had access to these materials. Additional Russian language materials such as transparencies and other technical updates could be accessed at the TALCs. On a monitoring visit, JHPIEGO staff learned that students were often pooling their money to make a communal copy or individual copies of the PocketGuide. Students were also making use of the TALCs to acquire additional reference materials.

◆ *To what extent are trainers/faculty using CBT in the classroom?*

An extensive range of CBT approaches were used for both CTS events and preservice and inservice clinical skills training in various RH disciplines (including FP). Students commented, however, that they did not receive enough practice time on anatomic models or in service provision with clients during training. Nearly 60% of trainers reported that there was insufficient client load at clinical sites for students to gain more experience.

⁶ The site administrators planned for cost-recovery so that the TALCs will be maintained after project closeout.

Trainers stated that they used a variety of training methods in the classroom settings. Information on contraceptive methods was usually presented in a lecture/discussion style coupled with some combination of group work, case studies, role plays and, where appropriate, practice on anatomic models. Overall, both trainers and participants reported a high level of confidence for all FP methods. One notable exception was the level of confidence in injectable counseling. Among participants, injectable counseling had the lowest reported confidence, and among trainers, it had the second lowest (after postabortion care [PAC]/FP).⁷

Confidence was examined by training method for four different FP skills (rated on a 3-point scale and then recategorized into a dichotomous variable). The method by which participants were trained seemed to relate to their level of confidence in performing a particular FP skill. **Table 5** shows the training methods used for various services for all participants who reported confidence in providing those services. For example, almost all participants reported confidence in IUD insertion, and 88.7% had practiced on anatomic models. In addition, almost all participants reported confidence in general FP counseling, and 79.9% participated in role plays during training.

Table 5. Training Methods Used for Participants Reporting Confidence in a Particular Family Planning Skill

Training Method	Participant Reporting Confidence in							
	General FP Counseling		Side Effect Management		IUD Insertion		Injectables	
	n	%	n	%	n	%	n	%
Lecture	191	97.5	154	78.5	161	82.3	160	81.5
Discussion	132	67.3	158	80.7	127	64.7	133	67.7
Role Play	157	79.9	107	54.8	122	62	128	65.4
Models	35	17.9	22	11.1	174	88.7	12	6.2
Clients	67	34.0	4	27.4	82	42.0	39	20.0

Supervision during practice also played an important role. As seen in **Table 6** below, instructors were far more likely to observe trainer and participant performance with an anatomic model (89.0% and 46.5%, respectively) than with clients (58.3% and 37.8%, respectively). Among participants, students received more trainer supervision (observation and checklist) than healthcare providers did.

⁷ Lack of confidence in provider PAC/FP is to be expected because virtually no PAC/FP training was conducted under this project. It is, however, included in both the pre- and inservice FP/RH curricular components.

Table 6. Type of Supervision Participants Received During Practical Portion of a Training Course

	Trainers		Participants					
			Total		Healthcare Providers		Students	
	n	%	n	%	n	%	n	%
Practice on anatomic models assessed by:								
Instructor's observation	11	30.6	117	60.0	139	70.9	99	50.5
Instructor's observation and checklist	31	89.0	91	46.5	82	41.8	99	50.5
Fellow student's observation	4	11.1	32	16.3	29	15.2	34	17.2
Fellow student's observation and checklist	7	22.2	27	14.0	27	14.0	27	14.0
Work with clients assessed by:								
Instructor's observation	18	50.0	99	50.6	102	52.0	97	49.5
Instructor's observation and checklist	21	58.3	74	37.8	57	29.1	89	45.2
Fellow student's observation	2	5.6	25	12.8	10	5.1	17	8.6
Fellow student's observation and checklist	2	5.6	13	6.4	12	6.3	36	18.3

Participants and trainers were asked about obstacles that may have prevented them from providing FP services to clients during the clinical skills or CTS courses (**Table 7**). For both trainers and participants, insufficient work time with clients was the biggest obstacle when providing FP services during a training course followed by insufficient client load at the clinical site. Overall, medical supplies, contraceptive stocks and insufficient practice time with anatomic models were problems for only a few. (See **Table 7**.)

Table 7. Reported Obstacles to Providing Family Planning Services During Clinical Skills or Clinical Training Skills Practicum Training

Obstacle	Trainers n=38		Participants n=196	
	n	%	n	%
Insufficient work time with clients	24	63	94	48
Insufficient client load at clinical site	23	61	54	28
Insufficient medical supplies (in the case of IUD training)	3	8	5	3
Contraceptives not at training site	3	8	20	10
No counseling room for clients	3	8	10	5
Insufficient practice time with anatomic models	--	--	5	3

- ◆ *Are reference materials and supplies still available and are they being used? Are they adequate?*

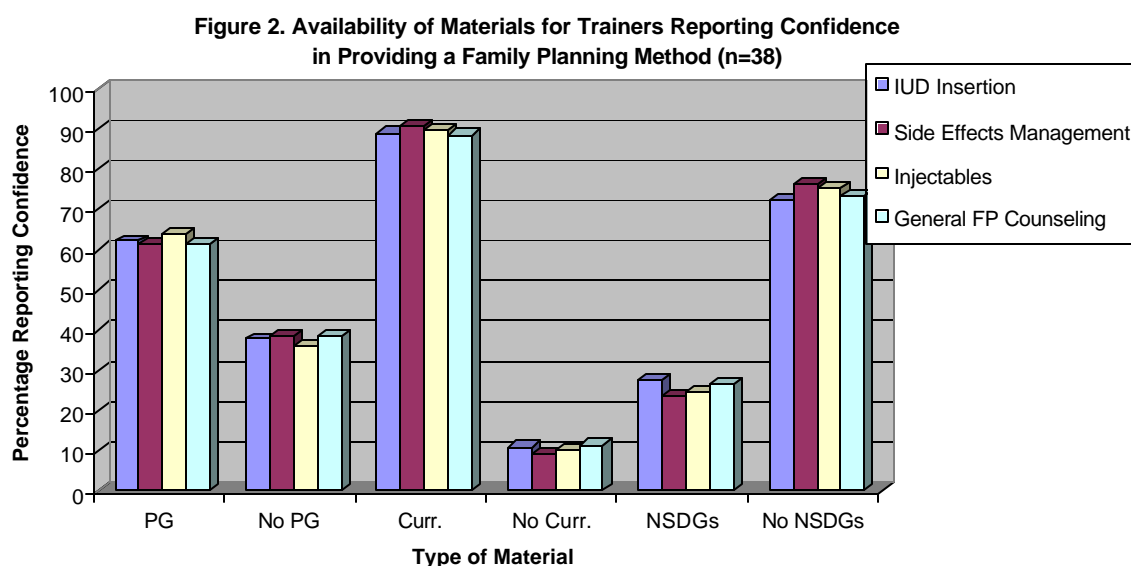
Most trainers, providers and students had access to JHPIEGO's second Russian language edition of the *PocketGuide for Family Planning Service Providers* (the main technical reference source for the majority of respondents), Uzbek national FP/RH (preservice or inservice) curricular components, ZOE anatomic models and hand-held uterine models during training (**Table 8**). Most reference and clinical materials were used through a lending-library system where students and trainers could borrow the materials and then return them when training was over. Through informal interviews with ob/gyn department heads at TashMI I and II, the evaluation team learned that some students used personal funds to photocopy these materials.

Table 8. Reported Availability of Clinical and Reference Materials

Material	Trainers n=38		Participants n=196	
	n	%	n	%
PocketGuide	36	94.4	115	58.7
FP/RH curricular components	36	94.4	165	84.3
ZOE pelvic anatomic model	37	97.2	189	96.5
Uterine model	37	97.2	172	87.8
Counseling cue cards	26	68.4	76	38.7
Contraceptive technology	19	50.0	80	40.7
NSDGs	17	44.4	48	24.4
Condom anatomic model	11	27.8	44	22.7
Breast anatomic model	3	8.3	9	4.7
Population reports	4	11.1	5	2.3

The reported availability of materials seemed to affect trainer confidence. **Figure 2**⁸ depicts how the *PocketGuide for Family Planning Service Providers*, copies of the new curricular components, and the NSDGs affected confidence in IUD insertion, management of contraceptive side effects, injectables and general FP counseling. Having the curriculum had a positive effect on confidence across the four skills, as did having the PocketGuide, albeit to a lesser extent. The opposite was seen with the NSDGs. It appears that the guidelines were rarely used as reference, especially in a skills setting.

⁸ See **Appendix F** for this information in table format.



Notes: PG=PocketGuide, Curr.=curriculum

- ◆ *What strengths and weaknesses exist in IUD insertion, COC counseling and general FP counseling among trainers and participants?*

During the first workshop, regional trainers from Uzbekistan, Kazakhstan, and Kyrgyz Republic developed three observation checklists, highlighting critical steps for desired competency. If the provider or student did not do these critical steps correctly, they were not considered competent. In most cases, regional trainers defined critical steps by whether or not the step put the client at risk for any immediate or long-term health complication. Overall, both trainers and participants performed the steps competently. **Table 9** compares observed and adjusted rates and contrasts these rates with self-reported confidence levels. Adjusted rates were calculated based on a post-hoc review of the observation checklists.⁹ Upon closer review of the observation forms, some were rated 'competent' overall, despite the fact that a critical step was not performed or not done properly. These people were re-classified as 'not competent' and we adjusted the competency rates.

Table 9. Reported and Adjusted Skill Competencies Versus Self-Reported Confidence Levels

Skill	Observed Rated Competency		Adjusted Competency		Trainer Confidence		Participant Confidence	
	Trainer	Participant	Trainer	Participant	Very	Some-what	Very	Some-what
IUD Insertion	100%	98%	37%	17%	94.4%	5.6%	62.5%	32.2%
COCs	100%	100%	100%	100%	77.8%	22.2%	36.8%	57.6%
General FP	100%	100%	80%	90%	80.6%	16.7%	55.8%	43.6%

There was much consistency between the observer ratings and the adjusted ratings for COCs and general FP counseling. The discrepancy between observed and adjusted rates for IUD

⁹ On these checklists, critical steps were identified (during the first evaluation workshop). If these critical steps were missed or not performed, the person was deemed 'not competent.'

competency was largely due to improper or incomplete pre-insertion counseling practices and poor or unobserved IP practices.

Tables 10 to 12 list the key and critical steps for all three skills most often missed by trainers and participants, along with the frequency with which they were missed. **Table 10** details the steps for IUD insertion.

Table 10. Key IUD Insertion Steps Not Performed Competently or Not Observed to Be Performed

Key Step	Trainer Not Competent n=24	Participant Not Competent n=35	Trainer Not Observed n=24	Participant Not Observed n=35
Revisits her RH history: parity				3
Multiple sexual partners	5			16
Ectopic pregnancy				9
Sexually transmitted infections				12
Explains to the client what is going to be done and encourages her to ask questions	1		6	16
Conducts bimanual examination	6	8	0	7
Palpates abdomen and checks for suprapubic or pelvic tenderness and masses or other abnormalities		3	2	12
Performs speculum examination		4		
Swabs cervix (especially os) and vagina two or more times with antiseptic	1	7		
Gently grasps cervix with tenaculum		8		
Passes uterine sound once through cervix without touching the vaginal walls or speculum	1	3		
Determines depth of uterine cavity and position of uterus; removes sound		4		
Uses proper IP instrument processing	4	10		17
Wears gloves	10	25	7	4
Handwashing			1	

Note: Shaded cells indicate critical steps.

Sixteen of the 35 participants observed did not ask the client if she or her partner had multiple sexual partners, and five of the 24 trainers were not deemed competent in eliciting this information. Twenty-nine of the 35 participants and 17 of the trainers were either judged not competent or were not seen using gloves during the insertion procedure (**Table 10**). It is clear that trainers and participants may have over-rated their confidence in IUD insertion because 94.4% of trainers and 62.5% of participants reported being very confident in IUD insertion. Almost 6% of trainers and 32% of participants felt at least somewhat confident in the skill (**Table 9**). No trainers felt they lacked confidence IUD insertion, and only 5.3% of participants reported no confidence in the same.

There was no discrepancy between reported and adjusted rates for COC competency. Most frequently missed steps for both trainers and participants were telling the client about signs for which she needs to return to the physician and asking clients to repeat instructions. In addition,

participants (14 of 23) were not often observed to tell clients where to obtain COCs (**Table 11**). It is unknown whether they knew this information and did not relay it to the client or if they simply did not know the information.

Table 11. Key Combined Oral Contraceptive Counseling Steps Not Performed Competently or Not Observed to Be Performed

Key Step	Trainer Not Competent n=24	Participant Not Competent n=23	Trainer Not Observed n=24	Participant Not Observed n=23
Asks client what she knows about pills; corrects misinformation	1	1	3	5
Explains the effectiveness of COCs to the client			3	1
Explains how to take the pills	1	3		
Explains side effects		1	2	3
Tells the client about signs for which she needs to return to the physician			6	8
Writes a prescription for the pills or tells client where to obtain them	3		1	14
Asks client to repeat instructions; corrects misinformation		1	3	8
Asks client if she has any further questions			8	1
Schedules a return visit			3	4

Note: Shaded cells indicate critical steps.

Surprisingly, fewer trainers and participants claimed to be “very confident” in providing COC counseling (77.8% of trainers and 36.8% of participants). Twenty-two percent of trainers and 57.6% of participants reported being somewhat confident in COC counseling (**Table 9**). Six percent of participants said they were not confident in COC counseling and no trainers reported no confidence. It is important to note that only 8% of trainers and 11% of participants reported that there were insufficient contraceptives at the training site.

The discrepancy between reported and adjusted rates for general FP counseling competency was largely due to: giving clients information in an understandable manner, explaining advantages and disadvantages of each method, talking to the client about managing side effects and taking effective client history.

Only two trainers were not competent in giving clients concrete and specific information. One participant was not observed doing this step. Five trainers and one participant were not competent giving information in a way the client could understand. Seven trainers and one participant were not observed to explain the advantages and disadvantages of each method’s effectiveness. Six trainers and five participants were not observed telling clients about whether a particular method protects from sexually transmitted infections (STIs). Nine trainers and 11 participants were not observed telling the client for which side effects she should return to the physician (**Table 12**).

The discrepancy between reported and adjusted rates for general FP counseling among trainers (100% versus 80%) was larger than among participants (100% versus 90%), however it was a smaller gap for both when compared to discrepancies in IUD competency.

Table 12. Key General Family Planning Counseling Steps not Performed Competently or Not Observed to Be Performed

Key Step	Trainer Not Competent n=25	Participant Not Competent n=20	Trainer Not Observed n=25	Participant Not Observed n=20
Assures client confidentiality			11	10
Encourages client to ask questions and answers them	2	1	8	3
Gives client concrete and specific information	2			1
Gives information in a way the client can understand	5	1		
Uses visual aids like counseling cards and anatomic models	1	1	3	5
Asks the client to repeat information so that the provider knows s/he understands		1	2	7
Explains the advantages and disadvantages of each method: effectiveness			7	1
Accessibility			1	2
Non-contraceptive benefits			1	2
Protects against STIs		1	6	5
Side effects		1		5
Asks which methods the client is interested in	1		7	3
Finds out what the client knows about each method and corrects misinformation	1		9	3
Determines which methods the client cannot use because of medical history			3	3
Tells the client which side effects she needs to be aware of that would require a return to the physician			9	11
Asks if the client has any questions			6	1
Refers the client if necessary			13	4
Schedules followup visit if necessary			11	4

Note: Shaded cells indicate critical steps.

Reports of being very confident in general FP counseling were lower than those for IUD insertion and higher than those for COC counseling—80.6% for trainers and 55.6% for participants. Eight percent of trainers and 5% of participants reported that lack of a client counseling room was a barrier to providing FP services and clinical sites.

Trainers, providers and students also performed at different levels. **Table 13** shows how each cadre performed by the type of observation (IUD insertion, COC counseling, general FP counseling).

Table 13. Competence by Cadre and by Type of Skill Performed

Cadre	IUD Insertion				COC Counseling				General FP Counseling			
	Observed		Adjusted		Observed		Adjusted		Observed		Adjusted	
	n	%	n	%	n	%	n	%	n	%	n	%
Trainer	23	100	10	43.5	22	100	22	100	23	100	13	56.5
Healthcare Provider	25	96.2	5	19.2	22	100	20	90.9	17	100	6	35.3
Student	8	100	1	12.5	3	100	3	100	5	100	3	60

In all three cadres, observers overrated their general FP skills and providers/students were overrated for IUD. The rater or courtesy bias shows that observers were not determining competency based on the checklist criteria but were using their judgment instead. This could be indicative of the coach/trainer relationship with the participant and they may have reverted to their trainer roles.

Table 14 shows the number of trainers, healthcare providers and students observed by the person who observed them. The master trainer observed many of the trainers and the majority of the ten students observed while the two advanced trainers observed most of the healthcare providers (10 of 12). **Appendix F** contains details on the trainers rating of Competent Trainers, Healthcare Providers and Students (Observed and Adjusted), by Observer and Type of Skill.

Table 14. Number of Trainers, Healthcare Providers and Students, by Observer

Observer	Trainer		Healthcare Provider		Student	
	n	%	n	%	n	%
Master Trainer	10	43.5	2	19.9	7	70.0
Advanced Trainer (1)	4	17.4	7	58.3	0	0.0
Advanced Trainer (2)	9	39.1	3	25.0	3	30.0

DISCUSSION

This self-directed evaluation documented that the training system in Uzbekistan is quite strong and that most gaps exist on the level of service delivery systems capacity. For example, it is likely that most providers were not wearing gloves because gloves were not provided at the sites in which they worked, not because they were not trained or were not adhering to glove use protocols. Participants identified the system gaps and outlined ways in which to present these issues to the MOH and donor agencies for future considerations. Participants were also encouraged to present unexpected program results, especially when they underscored achievements in training and service delivery.

An example of an unexpected program result is captured in the Samarkand Medical College case study (**Appendix E**). Although the school received no direct support from JHPIEGO, its administration sought out JHPIEGO trainers to implement CBT into its preservice curriculum. This case study demonstrates the effectiveness of locally organized rollout training and how the RCTN can serve as a sustainable national and regional resource.

The remainder of the discussion section is organized according to the key questions of the evaluation.

What alliances have been established, and how have they facilitated the continuation of the clinical training system in Uzbekistan?

The RCTN wanted to establish an Uzbek clinical training NGO. In 1999, an Uzbek NGO was officially registered and it has a small staff of trainers, including master trainer, Dr. Larisa Agababayan. At the time this evaluation was conducted, this NGO hadn't yet received any funding for activities, although its small staff had attended capacity-building activities such as workshops in proposal writing.

The RCTN has also made alliances with other cooperating agencies and donors. Trainers in Tashkent and Samarkand has been approached by UNFPA, World Health Organization, EngenderHealth and Abt Associates to act as consultants in their respective RH and healthcare reform efforts. The advanced trainer at TashMI II was also appointed the director of an AIHA-funded Women's Wellness Center. These trainers are bringing JHPIEGO's materials and revised curricular components to these various projects in the form of CBT for these organizations.

The alliances, both among RCTN members and with other organizations, have helped with the availability of training materials and with human resources for training. RCTN trainers often used a lending-library system so that every trainer had access to materials. In addition, they shared new materials via the Internet as they were adapted. For example, Dr. Agababayan shared her training materials with fellow trainers in Uzbekistan after she had them translated into Uzbek. The working groups that were formed during the curricular component revision process (and are now the core of the RCTN) not only will help with material sharing, but will also help with human capacity for training. Because all trainers in the RCTN are familiar with both preservice and inservice curricular components, they can train across cadres in a variety of situations.

To what extent are trainers/faculty using CBT in the classroom?

Trainers and faculty were using CBT in all three classroom settings - TashMI I and II and SamMI. Trainers used a variety of training methods and materials to transfer knowledge and skills in a wide range of RH topics in pre- and inservice settings. Trainers shared resources

amongst themselves, and senior trainers provided technical assistance and cotraining opportunities to new trainers on a regular basis.

Despite effective classroom training, healthcare providers and students stated that there was insufficient client load and hence insufficient time to work with clients during training. These two obstacles suggest that the clinical sites may not have been appropriate for clinical practice; this resulted from a lack of formal assessment at the beginning of the project. It should also be noted that there is an overabundance of physicians in Uzbekistan. It is possible that there are simply not enough clients for all of the physicians in the training periods. This problem is even more severe for students because they will not be given precedent over a physician already practicing. In addition, clinical rotations for students do not often allow them to interact with clients. Because client load was deemed insufficient, it was all the more important that trainers and participants reported having ample time to practice with anatomic models.

The high levels of confidence in IUD insertion, side effects management and general FP counseling reported by trainers, healthcare providers and students are due in part to quality training and adequate practice time with anatomic models. Trainers, healthcare providers and students reported that their second lowest level of confidence was in providing injectable counseling. Even though contraceptive stockouts were not listed as a barrier to providing FP, the department heads have reported that injectable stockouts happen frequently. This lack of confidence on the part of trainers and providers may be that they are not comfortable telling clients about injectables if they know that the method will not always be available. Alternatively, it could be that because the method was not always available, providers did not have an opportunity to counsel on or provide injectables to their clients. The lowest confidence level reported among trainers, healthcare providers and students was providing PAC/FP services.¹⁰

To address the need for PAC in training, in March 2000, JHPIEGO held a 2-day PAC informational workshop to discuss the status of PAC services, specifically postabortion FP services, in the CAR (Levin and Lu, 2000). During this workshop, recommendations for revising preservice curricular components focused on linking curettage services with FP services. Inservice training recommendations centered on the inclusion of counseling and referral into course schedules. Because obstetricians/gynecologists are already trained in dilatation and curettage and manual vacuum aspiration (MVA) materials are not readily available, it seemed more feasible to try to concentrate resources and efforts on better postabortion referral and transport in case of complications.

The master and advanced trainers attending, however, all of whom are tenured faculty members in their home institutions, expressed interest in introducing MVA training into their curricula. They envisioned training both ob/gyn specialists and general practitioners in a technique they saw as a safer alternative to curettage. The workshop participants also realized that external resources are needed to carry out their recommendations, particularly in setting up FP services at teaching hospitals. Their recommendations included having them seek grants directly from other international agencies working in the region.

Are reference materials and supplies still available and are they being used? Are they adequate?

We found that there were adequate training and reference materials, including anatomic models, with which to conduct CBT. Most trainers had access to the *PocketGuide for Family Planning Service Providers*, copies of the new curricular components, ZOE anatomic models

¹⁰ As discussed earlier, the JHPIEGO project did not address PAC issues in this program, so trainers, providers and students were not exposed to these topics during training.



and hand-held uterine models. Although most of these trainers received this material while in training, those who did not have a personal copy borrowed from other trainers. The ob/gyn departments at TashMI I and II kept these materials in communal spaces and instituted a lending-library system so that the entire faculty had access to these materials. Additional Russian language materials such as transparencies and other technical updates could be accessed at the TALCs at each of the two institutions.

Healthcare providers had less access to these materials than trainers did, but many of them still had access to the *PocketGuide*, the curricular components, ZOE anatomic model and uterine model. Most students had access to the same materials as providers. On a monitoring visit, JHPIEGO staff learned that students were often pooling their money to make copies of the *PocketGuide*. Students were also making use of the TALCs to acquire additional reference materials.

The NSDGs were neither widely accessible nor often used among trainers, healthcare providers or students. The Uzbek guidelines are rather extensive and physically bulky. The Uzbek members of the RCTN recognized the need to revise the guidelines and make them more user-friendly. With limited resources, however, they may want to consider duplicating the *PocketGuide* or the curricular components because they are so popular.

The Uzbek trainers also translated the curricular components from Russian into Uzbek.¹¹ This initiative is significant for two reasons. First, the trainers took on this task without any assistance from JHPIEGO. They pooled their own financial and technical resources to translate and disseminate the document. Although there were few copies in circulation, additional copies could be reproduced inexpensively. (A local printer in Uzbekistan offered to reproduce the document for about US\$1.00 per copy.) Second, as institutions like the Samarkand Medical College and other schools outside of the capital city use the curricular components, Uzbek language material will be crucial as the Russian language becomes less prevalent. Samarkand Medical College had already translated into Uzbek other training materials (learning guides and checklists) that accompany the curricular components. In October 2000, the college hosted a conference for nursing/midwifery school/medical college directors and staff throughout Uzbekistan. The conference focused on FP/RH education and how to help other medical colleges replicate Samarkand's success in implementing a CBT curriculum. These institutions now know these materials exist and can duplicate them.

Critical to sustainability is that the Uzbekistan MOH formally adopted the curricular components into their national preservice and inservice medical and nursing curricula. Hence, every training institution in Uzbekistan was expected to teach according to the components from then on. Materials, including copies of the curricular components themselves, would need to be widely available. In 1999, the MOH made a verbal commitment to Dr. Agababayan that they would aid in the dissemination of the new components and materials. This commitment has yet to be realized, so, as mentioned above, faculty and students have taken other measures to gain access to the material by implementing borrowing systems and by pooling personal funds to generate additional copies. It is expected that faculty and students will continue with this system, thus maintaining access to and use of these materials.

What strengths and weaknesses exist in IUD insertion, COC counseling and general FP counseling among trainers and participants?

¹¹ The Kazakh, Kyrgyz and Tajik curricular components were also translated into their respective local languages without JHPIEGO financial or technical support.

An integral component of the SDA was that the roles of advanced and master trainers shifted to roles of evaluators. As part of this transition, the evaluators created observation skills checklists with which to evaluate trainers, healthcare providers and students in IUD insertion, COC counseling and general FP counseling. These skills were selected because trainers identified them as the skills most commonly performed across all cadres. Uzbek evaluation team members identified which steps within each observation checklist were obligatory to deem a trainer, provider or student competent. If a critical step or steps were not performed, the person observed would be recorded as not competent.

There are, of course, biases in this evaluation. The way that those observed were selected was opportunistic, causing selection bias – and this was expected from the design of the SDA. Unexpected initially in the evaluation was that the observers only observed those who they themselves had trained. We believe this caused the over-rating documented earlier.

There was also variation among the three observers. Because no two observers assessed the same person performing a skill, we cannot gauge the extent to which the observers would have agreed or disagreed on assessing competence. And it was also clear after the post-hoc review of the observation checklists was that the evaluators did not always rate competency based on critical steps.

All cadres were deemed competent in all skills in almost all cases by the observers but the adjustments showed more disparity in results. The discrepancy between the reported competency and the adjusted competency in IUD insertion was largely due to improper counseling and improper IP practices - glove use and improper instrument processing. The largest discrepancy between observed and adjusted competency in IUD insertion was among students: 100% versus 12.5%. This result is to be expected from students because they had little practice in the procedure because they have very little client interaction during their schooling.

Trainers and participants performed competently in COC counseling with no discrepancy in reported and adjusted COC counseling. The difference between the reported and adjusted competency in general FP counseling was largely due to providers not providing information in an understandable manner, counseling on side effects and taking client history. Across the board, improvement in general FP counseling is needed.

Key Achievements Toward Sustainability

A key question in the evaluation was whether this regional training approach could be recommended for replication/expansion. (See also **Appendix G.**) The project for strengthening FP clinical training in Uzbekistan is in a good position to continue its efforts and ensure sustainability after JHPIEGO has closed out because:

- ◆ Key faculty at four major medical institutes and one major nursing/midwifery school in Uzbekistan have already implemented use of new teaching skills with new FP curricular components.
- ◆ Students and providers leave this training with high confidence and competence levels.
- ◆ An accessible regional training network is established and well equipped to handle training needs in Uzbekistan, including curriculum design.
- ◆ Training sites have found ways to use limited resources to continue training with the use of a lending-library system for materials and TALCs for information updates.

RECOMMENDATIONS

- ◆ **Expansion of Training:** It is important to continue the momentum of activity in Uzbekistan to ensure support continues for future training efforts. Next steps should be prioritized and should include the participation of the MOH. The network of Uzbek master and advanced trainers should continue to roll out the curricular components using CBT to remaining medical institutes and nursing/midwifery schools.
- ◆ **Strengthening Preservice Education and Cost-Recovery Mechanisms:** The RCTN should also focus on establishing and strengthening clinical sites, especially in the preservice setting. Steps should include training clinical preceptors along with classroom instructors so that there is a standardized set of skills that each student must be able to perform. In conjunction with this step, the RCTN should explore whether it would be possible to certify students receiving this training so that they are better placed after graduation for employment opportunities. If this type of system were possible, students might be willing to pay a small fee for this training, and cost-recovery systems to purchase commodities for the university and clinical sites could be established.
- ◆ **Ensuring and Evaluating Student Competence:** Application of CBT universally would ensure student and provider competence to provide a variety of FP services. Faculty at key training sites are now experienced in evaluating performance using checklists, simulations and case studies, after reinforcement from evaluation technical assistance to ensure that trainers who become evaluators are able to use the assessment checklists appropriately. The trainers should then consider implementing this system to all providers and students to ensure that they are performing to standard. In addition, the Uzbek working group should facilitate the production of appropriate data collection tools for clinical skills assessment. The Uzbek assessment team should also be used as a resource for additional evaluations in the region.
- ◆ **Feedback from Uzbek Team on the Evaluation Methodology:** The Uzbek team felt that the analysis of the data provided by the instruments would effectively document the achievements of the RCTN training system and JHPIEGO's approach to training in Uzbekistan. They would like additional opportunities for the team be an integral part of the data analysis and synthesis. They also felt that it would be useful to obtain client feedback to gain insight on the quality of services provided by practitioners.

PROGRAMMATIC IMPLICATIONS FOR JHPIEGO

This project was able to accomplish a great deal in a short amount of time. In five years, and with sporadic funding and precarious cash flow during the project period, the way in which healthcare providers—sixth- and seventh-year medical students and third- and fourth-year nursing/midwifery students—were trained was improved and faculty were trained to continue this approach to preservice education. The dedication of the Uzbek working group and participating faculty was, in large part, responsible for these accomplishments. Faculty quickly recognized the advantages of CBT for their own professional development as well as for the people they were training. And it was recognized externally as well. They have been asked to aid in developing CBT across other disciplines, and have been sought out by other development agencies that recognize the value of these skills.

The enthusiasm among participants also enabled the project to take off rapidly. Despite the large number of healthcare providers, medical students and nursing/midwifery students in Uzbekistan, especially at the selected training sites, faculty demonstrated they could train groups of up to 25 students and still supervise them.

The approach used in this evaluation is very different from past evaluation approaches. Despite the selection bias inherent in the self-directed approach, it could be used for mid-term evaluations and for programs with limited financial resources because it not only builds country capacity for evaluation but is also relatively low in cost. The Uzbek training team learned that broad amounts of information could be gathered in a short amount of time. Although it was not possible to evaluate everything a participant learned, self-reported performance and limited observation on anatomic models and with role plays provided a proxy for participant competence and confidence.

CONCLUSION

This evaluation demonstrated that the desired objective—incorporating competency-based FP training in both pre- and inservice medical institutes and nursing/midwifery schools—was achieved following rapid project implementation in Uzbekistan. The project for strengthening FP clinical training in Uzbekistan was well positioned to sustain the achievements made and it will continue along this path. The new curricular components are being implemented using CBT at major training and education facilities nationwide. Credit for this successful implementation is due to the commitment of the trained faculty members and subsequently by incountry master and advanced trainers. The faculty at these institutions should use information from participant self-assessments of experience and confidence on specific FP skills to strengthen training and ensure providers and students gain necessary FP skills (e.g., postabortion FP counseling). Faculty should also work toward securing more clinical practice in the preservice cycles.

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APPENDIX A

Evaluation Team Members

JHPIEGO Team

Susan J. Griffey Brechin, DrPH, BSN
Kama Garrison, MPH
Andreas Tamberg, MA
Leah Levin, MHS

Uzbek Team

Professor Larisa Agababyan, MD
Professor Makhmuda Kattakhojaeva, MD
Professor Dilbar Nazhmutdinova, MD

APPENDIX B

Workshop Schedule

The Uzbek team was unable to observe trainers as they trained because of time constraints. Most faculty members and trainers do not teach during the summer months. All 38 Uzbek trainers, however, were given questionnaires and 29 of them were observed in IUD insertion, COC counseling or general FP counseling.

Evaluation Workshop for Family Planning/Reproductive Health Education and Training Programs in the Central Asian Republics 22–29 May 2000, Tashkent and Samarkand, Uzbekistan						
Sun. 21 May	Mon. 22 May	Tues. 23 May	Wed. 24 May	Thurs. 25 May	Fri. 26 May	Sat. 27 May
Sue Brechin (SB) and Kama Garrison (KG) arrive 10:20pm Leah Levin (LL) arrives 1:00am	Venue: First Tashkent State Medical Institute (TashMI I) Coordinators meet with Andreas Tamberg (AT) Central Asian Medical and Pedagogical Association issues	9:00am: Agenda 9:15am: Revisit brainstorming session and introduction to Baltimore questions (SB/KG)** 10:30–12:00pm: Small group activity: answering key questions***	9:00am: Agenda 9:15–12:00pm: Small group activity continued: instrument development	Uzbek data collection exercise at Refresher Training Institute: Tashkent	Morning flight to Samarkand Uzbek data collection exercise at preservice multi-method course: Samarkand State Medical Institute	Uzbek data collection exercise at Samarkand Medical (midwifery) College (preservice)
	12:00pm: Preparation meeting/lunch	Lunch	Lunch	Lunch	Lunch	Lunch
	2:00pm: General introduction to workshop; introduction of SB and KG (Larisa Agababyan) 2:30–3:30pm: Evaluation slide presentation (AT) 3:30–5:00pm: Discussion/brain-storming session*	1:00–2:00pm: Small group activity continued 2:00–5:00pm: Small group activity: instrument (questionnaire) development	1:00–2:00pm: Small group activity report-out 2:00–4:30pm: Practice using instruments in a simulation 4:30–5:00pm: Closing 5:00–6:00pm: Meet with Uzbeks	Uzbek data collection exercise at preservice multi-method course: TashMI I End of day summary	Uzbek data collection exercise at Oblast Center for Maternal and Child Health (inservice) End of day summary	
Sun. 28 May	Mon. 29 May	Tues. 29 May	Notes: * List types of questions to be asked to delimit the scope and focus of the evaluation ** Refine key questions *** Report out on methodology			
Cultural outing	Wrap-up at Zarafshon Hospital	SB, KG and LL depart 3:00am				
Lunch	Lunch	Lunch				
	Return to Tashkent					

Evaluating Family Planning/Reproductive Health Education and Training Programs in the Central Asian Republics
Second Tashkent State Medical Institute
28–29 September 2000, Tashkent, Uzbekistan

28 September	29 September
<p>Opening Introductions Expectations Goal and Objectives of the Evaluation and Workshop Workshop Schedule</p> <p>Presentation: Background of the Self-Directed Evaluation in the CAR</p> <p>Coffee</p> <p>Presentation: Implementation of the Self-Directed Evaluation in Uzbekistan</p> <p>Methodology: tools for trainers, healthcare providers, medical and nursing/midwifery students IUD, COCs, Counseling Aspects Lessons Learned</p>	<p>Introduction and Schedule</p> <p>Presentation: Documenting “Unexpected” Successes</p> <p>Samarkand Medical College</p> <p>Small Group Activity: Methods of Documenting Unexpected Successes</p> <p>Small Group Presentations</p> <p>Coffee</p> <p>Presentation and Discussion: Training System Issues</p>
Lunch	Lunch
<p>Presentation: Evaluation Findings and Synthesis</p> <p>Discussion: Practical Implications of the Self-Directed Training System Evaluation in the CAR</p> <p>Identifying Followup Mechanisms</p> <p>Presentation: How to Document Success</p> <p>JHPIEGO Desk Review Case Study in Sustainability: Samarkand Medical College (For overnight review)</p> <p>Summary</p>	<p>Small Group Activity: Documenting Program Results</p> <p>Evaluation Followup</p> <p>Small Group Presentations</p> <p>National Group Activity: Methods for Documenting National Training Programs</p> <p>Presentation and Discussion: Next Steps</p> <p>Reporting Systems Project Closeout and Institutionalization Role of Network Trainers</p> <p>Summary and Closing</p>

APPENDIX C

Numerical Coding and Tracking System Form

Following the steps below ensures that all forms are coded and cross-referenced properly.

1. On the Trainer Rating Forms, you will see a trainer's name and number at the top of the first page. For each trainer who completes the Trainer Experience Questionnaire, please print their corresponding number at the top right-hand corner where ID#_ is printed.
2. Numbering will also be used on the Participant Experience Questionnaires. The Participant Experience Questionnaires are numbered 1–200.
3. After the Participant Experience Questionnaires are numbered, please divide them into thirds. Larisa will use questionnaires 1–75. Makhmuda will use questionnaires 76–125. Dilbar will use questionnaires 126–200. This procedure will ensure that no evaluator assigns the same number to two different people.
4. Please also number the Observation Checklists. When you observe a participant with an observation checklist, please number that checklist so that it corresponds to the number given to that participant for the Participant Experience Questionnaire. For example, Dilbar will write the number 126 at the top of the IUD Observation Checklist when the person who filled out Participant Experience Questionnaire 126 is conducting an IUD counseling session.
5. Finally, please fill out the enclosed Observation Tracking Sheet, a new form we developed to give us an overview of the type of data that was collected and from whom. Please list the trainer's or participant's number, mark whether they filled out the Trainer or Participant Experience Questionnaire and indicate whether you observed them performing an IUD insertion, COC counseling session or general FP counseling session.

For example, from the table below we know that Makhmuda administered Participant Experience Questionnaire 076 and observed the person who filled out questionnaire 076 doing an IUD insertion.

Number	Trainer Experience	Participant Experience	IUD	COC	General FP
076		X	X		



APPENDIX D

Trainer Rating Form

**There is the potential for recall bias with the participant and trainer experience questionnaires, as well as the trainer rating form. The evaluation sample consisted of trainers and participants who had conducted and received JHPIEGO training at some point in time over the past six years.

Assessor ID code:

Trainer ID code:

EVALUATION OF JHPIEGO'S FAMILY PLANNING/REPRODUCTIVE HEALTH (FP/RH) EDUCATION STRENGTHENING IN THE CENTRAL ASIAN REPUBLICS (CAR)

TRAINER RATING FORM

Instructions: All ratings information will be kept anonymous. Please fill in each response based on your knowledge and opinion about this trainer. Please do not consult any materials or any other trainer before or during completion of this form.

Assessor's name:

Assessor's ID code:

Today's date:

Name of trainer being rated:

Qualification of trainer being rated (please check one):

- Candidate Clinical Trainer
- Clinical Trainer
- Candidate Advanced Trainer
- Advanced Trainer
- Master Trainer

1. Please tell us how experienced you think this trainer is to conduct FP/RH clinical training:
 - Very experienced
 - Experienced
 - Not very experienced
 - Not experienced at all
2. Please tell us how confident you think this trainer feels in his/her ability to conduct FP/RH clinical training:
 - Very confident
 - Confident
 - Not very confident
 - Not confident at all

Assessor ID code:

Trainer ID code:

3. Please rate this trainer's performance overall:
- Proficient (able to conduct training and manage an ongoing training schedule without master trainer assistance)
 - Competent (able to conduct training according to the exact schedule and with assistance)
 - Not able to conduct training

Please rate this trainer on the following. Check only one box for each statement.

	Proficiently	Competently	Not Competently	Do Not Know
Part A: Applies skills that were learned				
Prepares ahead of time for training course				
Presents an effective introduction and states objectives				
Uses interactive methods when training (e.g., uses audiovisuals effectively)				
Creates a positive training climate (e.g., uses participant names, responds to participant questions)				
Uses the appropriate training method for the topic being taught				
Questions participants effectively (e.g., targets questions to groups and to individuals)				
Uses a standardized approach to assess knowledge and skills (e.g., uses questionnaires and checklists)				
Effectively demonstrates standardized clinical techniques during training, using the "whole-part-whole" approach				

	Always	Sometimes	Never	Do Not Know
Part B: Is proactive as a resource for CBT				
Participates in the development of the yearly plan in the department				
Coaches junior faculty in developing class notes				
Coaches healthcare providers at their place of work				
Conducts open-study sessions				
Attends and observes at open-study sessions				

Assessor ID code:

Trainer ID code:

	Always	Sometimes	Never	Do Not Know
Part C: Is interested in role as a trainer and in development as a professional				
Is open, friendly and approachable				
Is available and accessible during training courses				
Will be able to revise existing training materials and develop new learning materials when needed				
Continues to express interest in learning more				
Uses colleague trainers to assist him/her in training				
Takes opportunities for assistance when offered by more senior trainers				
Seeks out senior trainers for assistance on aspects of conducting training				

Please tell us whether this trainer does any of the following things:

	Yes	No
Part D: Participates in institutionalization of FP/RH training		
Thinks of self as a trainer in a network		
Envisions self as being able to take on additional clinical topics for conducting training		
Envisions further development of the clinical training network		
Envisions an increased number of clinical trainers in Uzbekistan		
Envisions the creation of a clinical training nongovernmental organization		



APPENDIX E

Product of Alliances Formed: Samarkand Medical College

The Samarkand Medical College is a prime example of a model training site that has employed a CBT approach to FP/RH and other disciplines in preservice nursing/midwifery education, using its own initiative and resources (Agababyan et al 2001). As such, it is a key illustration of the indirect and synergistic effects of JHPIEGO interventions in Central Asia—the stimulation of successful local efforts to incorporate CBT into medical and nursing/midwifery education in a systematic and therefore sustainable fashion.

In years past, the Samarkand Medical College was essentially a trade school, but its acquisition of CBT techniques and professional instruction from a tenured medical institute professor and JHPIEGO master trainer helped it complete its transformation into an institution for professional education. What is equally notable is that the Samarkand Medical College is now helping other like institutions raise their level of professional training. By using existing expertise and the JHPIEGO-created national clinical training network, nursing/midwifery schools across Uzbekistan are reaping the benefits of a modestly funded 3-year project.

In 1998, the MOH and the Ministry of Higher and Secondary Specialized Education (MOE) designated the Samarkand Medical College as a model training institution for the country and a pilot site for testing new approaches to nursing/midwifery education and training. Under director Dr. Iakhshinor Allayarov's leadership, the college decided to exercise its label as a model center by utilizing JHPIEGO master trainer, Dr. Larisa Agababyan, and the new curricular components.

Dr. Allayarov invited Dr. Agababyan (who had conducted courses at SamMI as well as other courses around the region) to conduct a CTS course to prepare his faculty to use the newly adapted 32-hour preservice nursing/midwifery curricular components. Dr. Allayarov's initiative and Dr. Agababyan's unpaid technical assistance in the form of clinical instruction, instructional design input and coaching skills prompted a revolutionary change at the college.

As part of its project in the CAR, JHPIEGO worked with several medical institutes and nursing/midwifery schools in each country to strengthen FP/RH training at the preservice and inservice levels. The project's first initiative was the revision and adoption of nationally standardized FP/RH curricular components in Uzbekistan, Kazakhstan, Kyrgyz Republic and Tajikistan. Concurrently, JHPIEGO strengthened the capacity of clinical trainers, classroom instructors and clinical preceptors to train students and healthcare providers according to the revised, standardized curricular components for the region. The combination of the new component and a critical mass of skilled trainers both nationally and regionally provided fertile ground for other medical and nursing/midwifery institutions to benefit from this project. With 38 trainers trained in Uzbekistan, including one master trainer, Dr. Agababyan, and the initiative of Dr. Allayarov, the new curricular components and new training methodologies were introduced in a school in which JHPIEGO never worked.

With 48 nursing/midwifery schools in Uzbekistan and limited project funds, JHPIEGO could not reach each institution directly to ensure that faculty were conducting training according to the new curricular components. To overcome this obstacle, JHPIEGO developed a broad base of clinical trainers who could roll out training to other faculty at the remaining medical institutes and nursing/midwifery schools. Master trainer, Dr. Agababyan, saw herself as an advocate for such



rollout training and conducted a few independent courses at SamMI with JHPIEGO financial assistance only.

To stretch JHPIEGO's resources further, Dr. Agababyan used the materials for these courses (contraceptive technology update [CTU]/CTS) on a lending-library system: participants used the materials while in class and were free to copy them at their own expense, but had to return the materials at the end of the course. By using this loan system, Dr. Agababyan had the materials to conduct courses without outside technical or financial assistance.

The new training methods and new FP/RH curricular components will provide Samarkand Medical College's 1,018 17- to 19-year old undergraduates with the knowledge and skills needed to work at their assigned rural primary healthcare posts. These graduates are responsible for providing healthcare services to the majority of the oblast's 2 million people. In addition, the faculty of this college, with the help of Dr. Agababyan and other advanced trainers in the area, can transfer new training methods to other nursing/midwifery schools throughout Uzbekistan.

The Samarkand Medical College's primary funders, the MOH/MOE oblast administrations, would also like to see the progress made at this institution transferred to other schools. The college is not only the gold standard for nursing/midwifery education and training in the country, but it has also found other avenues to expand its financial resource base. Samarkand Medical College supplements its state budget with proceeds from textbook sales, its students' agricultural work¹ and independent grants. These additional monies have been used to purchase anatomic models for practice, copy training manuals and pay for translation of these training manuals into Uzbek.

To facilitate the transfer of training, in October 2000 the Samarkand Medical College hosted a conference for nursing/midwifery school and medical college directors and staff throughout Uzbekistan. The conference focused on FP/RH education with the objective of enabling other medical colleges to replicate the Samarkand Medical College's success in implementing a CBT curriculum. Notably, this curriculum would encompass all of the disciplines taught at the medical colleges and schools.

¹ During the annual Uzbek cotton harvest, it is tradition for students to leave school and participate. The schools use the revenue generated from cotton commodities gathered and sold by the students to procure textbooks and other educational materials.

APPENDIX F

Competent Trainers, Healthcare Providers and Students (Observed and Adjusted) by Observer and Type of Skill

The table below shows the observed and adjusted competence of trainers, healthcare providers and students by who observed them and by type of skill (IUD insertion, COC counseling and general FP counseling). All of the observers, despite their trainer level (master or advanced trainer), reported that all trainers, healthcare providers and students were competent in IUD insertion, COC counseling and general FP counseling with one exception. One advanced trainer reported one healthcare provider not competent in IUD insertion.

**Number of Competent Trainers, Healthcare Providers and Students (Observed and Adjusted)
by Observer and Type of Skill**

Observer	Trainer				Healthcare Provider				Student			
	Observed		Adjusted		Observed		Adjusted		Observed		Adjusted	
	n	%	n	%	n	%	n	%	n	%	n	%
Master Trainer												
<i>IUD insertion</i>	10	100	10	100	19	100	19	100	5	100	5	100
<i>COC counseling</i>	10	100	10	100	13	100	11	58			1	20
<i>General FP counseling</i>	10	100	0	0	9	100	0	0	2	100	1	20
Advanced Trainer (1)												
<i>IUD insertion</i>	4	100	2	50	4	67	3	50				
<i>COC counseling</i>	4	100	4	100	6	100	6	100				
<i>General FP counseling</i>	4	100	4	100	6	100	4	67				
Advanced Trainer (2)												
<i>IUD insertion</i>	9	100	8	89	2	100	2	100	3	100	1	34
<i>COC counseling</i>	8	89	8	89	3	100	3	100	3	100	3	100
<i>General FP counseling</i>	9	100	9	100	2	100	2	100	3	100	2	67

Among all of the trainers observed, the master trainer's reported observation was identical to the adjusted rate in IUD insertion and COC counseling, but they were complete opposites in general FP: the observed rate was 100% competent and the adjusted rate was 0% competent. There was more disparity among healthcare providers in COC and general FP counseling. The master trainer rated 100% of healthcare providers competent in all three skill areas, but the adjusted rates show only 58% competent in COC counseling and 0% competent in general FP counseling. There was no disparity among the master trainer's observed rates and the adjusted rates for students in IUD insertion and COC counseling. It should be noted that sample sizes here are small.

Advanced trainer #1 had no disparity between reported and adjusted rates in any skill among trainers: all were competent. This advanced trainer did not observe any students. Among healthcare providers, this observer reported 67% as competent in IUD insertion but only fifty percent were competent according to the adjusted rate. There was no disparity in observed and adjusted rates in COC counseling. This advanced trainer considered all healthcare providers competent in general FP counseling, but according to adjusted rates, only 67% were competent.

Advanced trainer #2 reported 100% of all trainers competent in all three skills. The adjusted rates, however, show that only 89% of trainers were competent in IUD insertion. There was no disparity in reported and adjusted rates for any skill among healthcare providers. This advanced trainer rated all students competent in all three skills. The adjusted rate for COC counseling also shows all students to be competent. Only thirty-four percent of students, however, were competent in IUD insertion according to adjusted rates and only 67% were competent in general FP.

APPENDIX G

Summary of Results and Recommendations

The results are divided into two categories (project planning and project implementation) to examine how results reflected these factors. This section provides insights as to what is replicable in other countries regionally or globally.

Project Planning

Planning comprises four topics: conceptual framework, consensus among Central Asian partners, JHPIEGO technical assistance and JHPIEGO/USAID workplans FY97 to FY00.

- ◆ **Conceptual Framework:** As in the rest of the former Soviet Union, RH healthcare providers are usually trained to perform their professional duties in inservice settings. International donors, implementing agencies and MOHs have concluded that it would be more cost-effective to provide RH training to physicians and other medical personnel in a preservice setting. Implementing this decision required revised FP curricular components for both pre- and inservice medical and nursing/midwifery institutions. The conceptual framework for curriculum revision in Central Asia needed to be based on building a training network that could roll out the new curricular components across the region, especially in preservice settings.
- ◆ **Consensus Among Central Asian Partners:** To prepare for the curricular revision process, five coordinators were brought to Baltimore in June 1997 and were trained in advanced training skills and instructional design. Upon their return to Central Asia, each coordinator gathered a technical working group, generally a faculty member from each cadre of medical training. Between June and September, the working groups lobbied their respective MOHs on the necessity of expanding the FP content into medical and nursing/midwifery curricula on both a preservice and inservice level. An initial workshop was held in Almaty, Kazakhstan in the fall of 1997 to begin revision of the curricular components.
- ◆ **JHPIEGO Technical Assistance:** JHPIEGO provided training materials and anatomic models, and JHPIEGO staff and trainers contributed to the implementation of the project. JHPIEGO experience and expertise were essential to the development of the new curricula. JHPIEGO training methodologies were effective in inservice training of faculty and healthcare providers and for preservice training of students. Working group members were also well acquainted with revising curricula as well as the milieu in which change was to take place.
- ◆ **Action Plan 1997–2000:** In 1997–1998, JHPIEGO initiated a regional program aimed at revising and introducing a set of standardized preservice and inservice FP/RH curricular components for medical institutes, refresher training institutes and nursing/midwifery schools throughout Central Asia. This program resulted in the official adoption of these components in four of the five republics (excluding Turkmenistan). The rollout of these components developed a base of trainers capable of instructional design, conducting clinical skills/CTU workshops and delivering CTS courses.



In 1999–2000, after the curricular component program drew to a close, JHPIEGO focused on expanding the number of qualified trainers and sites capable of teaching the new curricula. It was JHPIEGO's intent to increase the initial base of three institutions in each republic that had received the requisite training to incorporate these components during the 1999–2000 academic year.

This expansion was accomplished through a series of CTS courses, clinical skills/CTU practica and advanced training skills courses. Additional interventions were needed to ensure that this network of trainers developed organizational capabilities and strengthened its training capacity in a sustainable fashion. It was envisioned that the network would best sustain itself as a transnational alliance of NGOs. This model will permit trainers from each republic to employ joint technical strategies geared toward local and regional needs, utilize each others strengths in multi-disciplinary teams, achieve Internet connectivity and leverage new resources (either government or external monies) in an efficient manner. By strengthening the network's technical and programmatic capabilities, JHPIEGO hoped to establish a permanent framework for FP/RH training and high-quality service provision.

Project Implementation

In 1998, after a year of curriculum revision and pilot testing, the new curricular components were ratified as national standards in four of the five republics.

The following five elements will be used to examine the process of project implementation: project management, faculty training, preparation of training materials, client load and reference resources/teaching supplies.

- ◆ ***Project Management.*** Because each Central Asian republic has comparable health education and service delivery systems, demographics and health indicators, developing a regional rather than a national programming strategy was both feasible and cost effective.

To facilitate this regional project, five coordinators, one from each country, came to Baltimore, Maryland in August 1997 to prepare for the project. The coordinators secured MOH approval for the curriculum revision effort, formed national working groups, prepared course outlines and schedules and developed requisite learning materials. In their capacity as advanced trainers, they also conducted second-generation rollout training to ensure that the faculty members (approximately 100 participants) at key institutions were prepared to conduct instruction according to the new curricular components by the 1998–1999 academic year.

The coordinators guided key stakeholders through the functional¹ and national working group sessions aimed primarily at adapting three sets of generic course outlines to the needs of each level of medical and nursing/midwifery education, as well as to specific national requirements. Given that Uzbekistan, Kazakhstan and Kyrgyz Republic all have established NSDGs, it was possible to stress the desirability of making curricular components compatible with the NSDGs.

The functional groups developed four generic outlines: X-day/hour preservice medical, X-day/hour preservice nursing/midwifery, X-day/hour inservice medical and X-day/hour inservice nursing/midwifery. The national working groups approved these outlines as

¹ Functional groups were comprised of working group members from each country and concentrated on the following areas: preservice medical, preservice nursing/midwifery, inservice medical and inservice nursing/midwifery.

consistent with their other curricular components and committed themselves to introducing the modifications necessary to accommodate clinical practice in their national courses.

Throughout the majority of the project, transportation between republics was relatively easy and inexpensive. A regional initiative also allowed each republic to benefit from the expertise and lessons learned in the others. For example, Uzbekistan, Kazakhstan and Tajikistan were able to use the minilaparotomy expert from the Kyrgyz Republic. Another advantage of a regional effort was the friendly rivalries that formed among the countries. To some degree, this helped the regional coordinators push their respective MOHs to ratify the new curricular components. For example, when the Kyrgyzs ratified their components, the Uzbeks and Kazakhs shortly followed suit.

In the last six to eight months of the project, political tensions among the countries became increasingly hostile. Borders between republics closed periodically and visa requirements were imposed on all Commonwealth of Independent States citizens. Transportation also became problematic and more expensive with the change of the Kazakh capital and the placement of landmines along the Kyrgyz/Uzbek border. These barriers resonated through the project as Tashkent often became the default location for many activities, and participants from other republics were sometimes unable to cross borders safely.

Recommendations

- JHPIEGO should keep in contact with the regional coordinators and the members of the national working groups.
 - JHPIEGO should encourage collaboration among national working groups in the future even if only via the Internet.
- ◆ ***Faculty Training:*** At the outset, the project emphasized the training of faculty at medical institutes, refresher training institutes and nursing/midwifery schools throughout the region. Faculty were trained according to the new curricular components, which incorporated JHPIEGO's standard CBT approach. These faculty members form the core of the RCTN and are able to transfer FP knowledge and skills to students and healthcare providers as well as train others to transfer these knowledge and skills. Faculty at TashMI I are now being asked to adapt the curricula of other medical disciplines to include CBT. Other institutions in Uzbekistan are expected to follow.

Recommendations

- The Uzbek working group should be contracted to help guide the curriculum revision process in other disciplines.
 - CTS courses should be offered to all faculty who will be teaching according to competency-based standards.
- ◆ ***Preparation of Training Materials:*** As mentioned earlier, the functional groups developed four generic outlines that accompanied the new curricular components. The outlines and curricula were translated into Uzbek, Kazakh and Kyrgyz at no cost to JHPIEGO. These local language versions were duplicated in small quantities and disseminated to major medical and refresher training institutes and schools of nursing/midwifery in their respective countries. To date, there are not enough copies for each faculty member. TashMI I and II and SamMI are keeping what copies they have in a central location and are using a lending-library system so that each faculty member has access to the curricular components and the outlines.

In September 1999, JHPIEGO staff developed a questionnaire to assess to what degree Uzbek institutions were using the newly adopted curricula² (Levin 1999). The questionnaire posed questions pertaining to access to the new curricula, training to use the new curricula, students' reactions to the new curricula, strengths and weaknesses of the curricula and how effectively the curricula had been incorporated into each institution's teaching plans. The questionnaire was given to department heads and faculty members who are responsible for fifth- and sixth-year medical and nursing/midwifery training.

At the ob/gyn department at TashMI I for preservice training, the faculty used the curriculum on a lending-library system because there was only one copy at the institute. Four of the six faculty members indicated that they were using the new curriculum in the classroom, were comfortable with its components and had received positive feedback from their students. These four faculty members had all participated in a JHPIEGO CTU, CTS or both and stated that these activities helped them to prepare to use the new curriculum. The head of the department, Dr. Makhmuda Kattakhojaeva, required that the new curriculum be used and was aware of the MOH's mandate to use it. She was involved in creating the new curriculum, and was instrumental in getting it approved by the MOH. Dr. Kattakhojaeva, along with the four faculty members using the curriculum, asserted that the curriculum was strong and reflected the current job responsibilities for healthcare providers. The two faculty members not using the curriculum did not feel prepared to teach the new information and skills and believed they would benefit from a CTS type of training.

At TashMI II, many of the same responses were solicited, including the use of the lending-library system. Only one copy of the curricula was at the institute, and the faculty members shared it. At TashMI II, all six faculty members responsible for training fifth- and sixth-year medical students with the new curricula felt comfortable using it and particularly liked its adaptability and its adherence to international standards. They also observed that the new curricula promoted active learning in their students. The faculty members indicated, however, that more time should be devoted to STIs and genital tract infections and to clinical practice.

Unlike the nursing/midwifery college in Tashkent, which had no knowledge of the new curricula, the college in Samarkand was using the curricula and the teaching staff found it useful. Many commented that it incorporated important knowledge and skills never before addressed. JHPIEGO trained the faculty members at the college on two occasions, and as such, the faculty felt comfortable teaching with the new curricula. Unfortunately, the responses were not as positive at SamMI. The head of the department knew of the curricula, but had never seen it. He did not have access to a copy of the curricula and consequently, his five faculty members responsible for fifth- and sixth-year medical training were not using it. He suggested that copies of the curricula and training on how to use it be provided to his faculty.

Recommendations

- Future training activities should take place in institutes and colleges with little or no knowledge of the curricula.

² See "Curricular Component Use" assessment forms created by K. Garrison and L. Levin on file at the JHPIEGO Research and Evaluation Office.

- ◆ **Client Load:** From the project's outset, the lack of adequate caseload for clinical FP training was noted. This lack of adequate practice opportunities was clearly documented in both the trainer and participant experience questionnaires. The lack of client exposure was only partly compensated by the use of anatomic models and role plays.

Recommendation

- There needs to be more efforts toward increasing student exposure to clients during training.
- ◆ **Reference Resources/Teaching Supplies:** Each training site in Uzbekistan was supplied with adequate audiovisual materials, clinical anatomic models and reference resources (PocketGuide, contraceptive technology, cue cards, training manuals). Equipment was available to faculty as were resources, even if only on loan. Trainers have been able to overcome shortages in training supplies by instituting a lending-library system and by doing minimal desktop publishing. Trainers have copies of the PocketGuide on disk, and the two sites in Tashkent can access ReproLine® and other online resources at their respective TALCs.

Recommendations

- Encourage faculty at TALC sites to create a dissemination strategy for Internet resources to other training sites in Uzbekistan.